d) $T(n) = T(n/2) + \log_2 h$

$T(1) = 1$

$T(n) = T(n/2) + \log_2 h$

$T(n/2) = T(n/2^2) + \log_2(n/2)$

$T(n/2^2) = T(n/2^3) + \log_2(n/2^2)$

$\downarrow$

$T(n) = T(n/2^k) + \log_2(n/2^{k-1})$

$\underbrace{}_{T(1)}$

$\dfrac{n}{2^k} = 1$ $\qquad k = \log_2 n$

$T(n) = T(1) + \displaystyle\sum_{i=0}^{k-1} \log_2(n/2^i)$

$T(n) = \displaystyle\sum_{i=0}^{k-1} \dfrac{\log_2 n}{\log_2 2^i}$

$T(n) = \displaystyle\sum_{i=0}^{k-1} \dfrac{\log_2 n}{i \log_2 2}$

$T(n) = \displaystyle\sum_{i=0}^{k-1} \dfrac{\log_2 n}{i}$

$T(n) = \log_2 h \left(\boxed{\displaystyle\sum_{i=0}^{k-1} \dfrac{1}{i}} \right)$ $\longrightarrow$ nunca será maior que 1

$\downarrow$ Domina o Somatório

$T(n) = \log_2 h$

Complexidade $O(\log_2 n)$